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(54) Recording and/or reproducing data

(57) A magnetic recording and/or reproducing apparatus achieves high performance encoding and high efficiency decoding to lower the decoding error rate. A magnetic recording and/or reproducing apparatus (50) includes, in its recording system, an error correction coder (51) for error correction coding input data and an interleaver (52) for scrambling the sequence of data supplied from the error correction coder (51). The magnetic recording and/or reproducing apparatus (50) also includes, in its reproducing system, A modulation and error correction turbo decoder (64). The decoder (64) has a deinterleaver for scrambling and re-arraying the sequence of the input data such as to restore the sequence of input data re-arrayed by the interleaver (52) to an original bit sequence, an error correction soft decoder (84) for decoding data supplied from the deinterleaver and a second interleaver (86) for scrambling and re-arraying the sequence of data given as a difference between data output from the error correction soft decoder and data output from the deinterleaver.

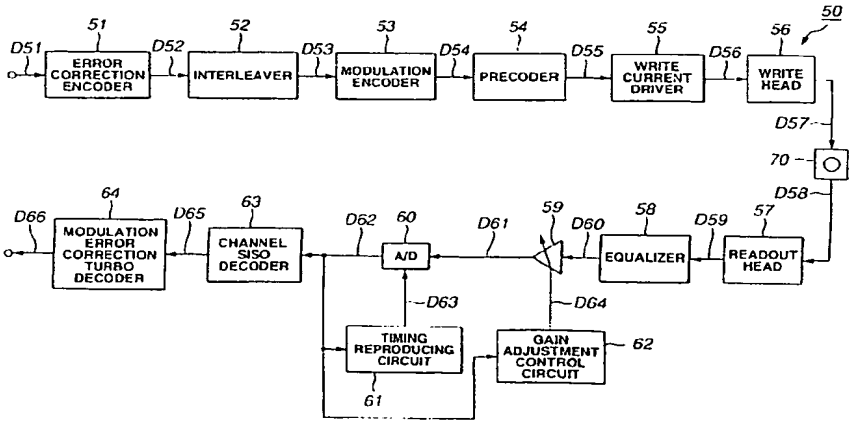

FIG.7

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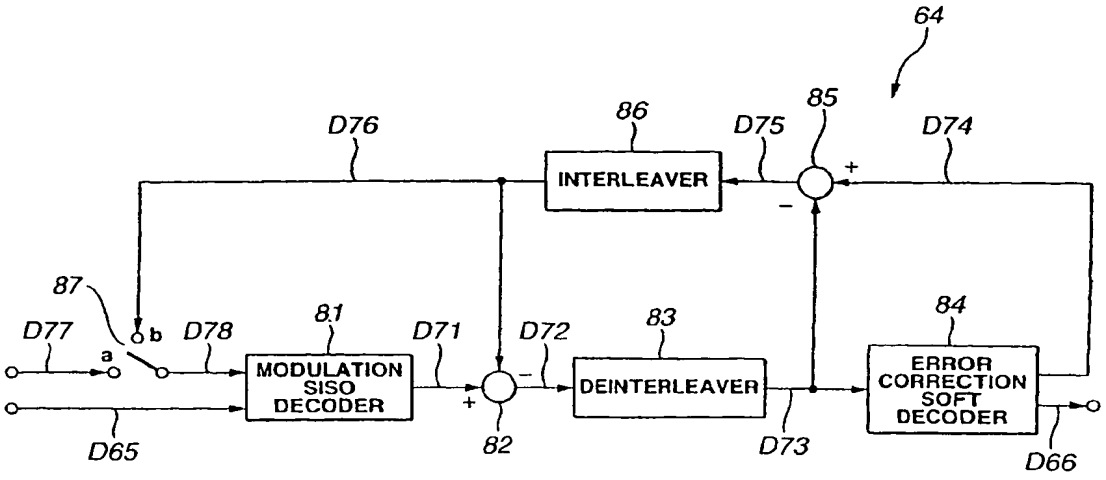
64
D76
86
INTERLEAVER
D75
85
D74
+
−
87
D77
a
b
D78
81
MODULATION SISO DECODER
D71
D72
83
DEINTERLEAVER
84
ERROR CORRECTION SOFT DECODER
D65
82
D73
D66

FIG.8

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EUROPEAN SEARCH REPORT

Application Number
EP 01 30 2686

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	23 October 2003	Ogor, M

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